

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of November 27, 2007 is respectfully requested.

By this Amendment, claims 1-12 have been cancelled and new claims 13-21 have been added and are currently pending in the application. No new matter has been added by these amendments.

The entire specification and abstract have been reviewed and revised. Due to the number of revisions, the amendments to the specification and abstract have been incorporated into the attached substitute specification and abstract. For the Examiner's benefit, a marked-up copy of the specification and abstract indicating the changes made thereto is also enclosed. No new matter has been added by the revisions. Entry of the substitute specification is thus respectfully requested.

A replacement Fig. 5 has been submitted, under separate cover, along with this amendment in order to correct a typographical error. In particular, it is noted that the reference number 62 in original Fig. 5 (which corresponds to the motor of the press 3) has been replaced with the reference number 61 in the replacement Fig. 5 in order to correspond with the specification. No new matter has been added by this amendment. Entry of the replacement Fig. 5 is thus respectfully requested.

On page 2 of the Office Action, the Examiner rejected claims 1-5 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. In particular, the Examiner indicated that the meaning of the phrase "unique signal" is not clear. As indicated above, original claims 1-12 have been cancelled and replaced with new claims 13-21, and it is noted that the new claims do not include the phrase "unique signal." Therefore, it is respectfully submitted that the Examiner's rejection under § 112, first paragraph, is not applicable to the new

claims.

On pages 2-3 of the Office Action, the Examiner rejected claims 1, 2, 5-7 and 10-12 under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner asserted that the claims include phrases which are unclear and render the scope of the claims vague and indefinite. In order to address these formal rejections, and in order to place the original claims in a proper form according to U.S. practice, the original claims have been cancelled and replaced with new claims 13-21, and the new claims have been drafted so as to fully comply with all the requirements of 35 U.S.C. § 112. Therefore, it is respectfully submitted that the Examiner's formal rejections under § 112 are not applicable to the new claims.

On pages 3-4 of the Office Action, the Examiner rejected claims 1-12 under 35 U.S.C. §102(b) as being anticipated by Oriti (US 4,414,887). However, as indicated above, claims 1-12 have been cancelled and replaced with new claims 13-21. For the reasons discussed below, it is respectfully submitted that the new claims are clearly patentable over the prior art of record.

New independent claim 13 recites an operation control method for a tandem press line in which a work transportation device is disposed between a press apparatus on an upstream side and a press apparatus on a downstream side. The method of claim 13 includes controlling operation of the press apparatus on the downstream side based on a signal in accordance with operation of the press apparatus on the upstream side. Claim 13 also recites controlling operation of the work transportation device in a work carrying-out section in a vicinity of the press apparatus on the upstream side based on a signal according to the operation of the press apparatus on the upstream side, and controlling operation of the work transportation device in a work carrying-in section in a vicinity of the press apparatus on the downstream side based on a signal according to the operation of the press apparatus on the downstream side.

In addition, claim 13 recites controlling operation of the work transportation device in a work transporting section between the work carrying-out section and the work carrying-in section based on a signal generated by an oscillator of the work transportation device, and *controlling the signal generated by the oscillator so as to gradually decrease a deviation between the signal generated by the oscillator and the signal according to the operation of the press apparatus on*

the downstream side.

Independent claim 17 recites a tandem press line in which a work transportation device is disposed between a press apparatus on an upstream side and a press apparatus on a downstream side, which includes a press controlling section operable to control operation of the press apparatus on the downstream side on the basis of a signal in accordance with operation of the press apparatus on the upstream side. Claim 17 also recites a work transporting control section operable to control operation of the work transportation device in a work carrying-out section on the basis of a signal in accordance with the operation of the press apparatus on the upstream side, with the work transporting control section being further operable to control operation of the work transportation device in a work carrying-in section on the basis of a signal in accordance with the operation of the press apparatus on the downstream side.

Claim 17 also recites that the work transporting control section is operable to control operation of the work transportation device in a transporting section between the work carrying-out section and the work-carrying in section on the basis of a signal generated by an oscillator of the work transportation device, with the work transporting control section *being further operable to control the signal generated by the oscillator so as to gradually decrease a deviation between the signal generated by the oscillator and the signal according to the operation of the press apparatus on the downstream side.*

Independent claim 21 recites a work transportation device for a tandem press line comprising a work transfer section disposed between a press apparatus on an upstream side and a press apparatus on a downstream side which are adjacent to each other among a plurality of press apparatuses, and a control section operable to control operation of the work transfer section. Claim 21 also recites that the control section is operable to control the operation of the work transportation device in the work transfer section on the basis of a signal generated by an oscillator of the work transportation device, with the work transfer section being between the work carrying-out section and the work carrying-in section. Claim 21 also recites that *the control section is operable to control the signal generated by the oscillator so as to gradually decrease a deviation between the signal generated by the oscillator and the signal according to the*

operation of the press apparatus on the downstream side.

Orii discloses a control device for a press secondary machining line which, as shown in Fig. 2, includes a series of presses 5, 11 and 17, a plurality of workpiece supplying/removing units 3, 7, 13 and 19, and auxiliary control units 23-25 which each control a press and a supplying/removing unit. Orii discloses that in operation, when a press machine operation is started, a workpiece supplying hand 4 of the workpiece supplying unit 3 loads a workpiece 2 on the press 5. Upon completion of the operation of the press 5, a main control circuit 22 outputs a workpiece conveyance signal which causes a workpiece removing hand 8 of the workpiece supplying/removing unit 7 to remove the workpiece 2 from the press 5 and send it to a stocker 9. In response to the next workpiece conveyance signal, a workpiece supplying hand 10 of the workpiece supplying/removing unit 7 removes the workpiece 2 from the stocker 9 and loads it on the press 11.

In this regard, it is noted that Orii does not disclose a method which includes controlling operation of the work transportation device in a work transporting section between the work carrying-out section and the work carrying-in section based on a signal generated by an oscillator of the work transportation device, and *controlling a signal generated by the oscillator so as to gradually decrease a deviation between the signal generated by the oscillator and the signal according to the operation of the press apparatus on the downstream side*, as required by independent claim 13. Rather, Orii merely discloses that a workpiece is removed from a press by a workpiece removing hand, placed on a stationary stocker, and at some point later is picked up by a workpiece supplying hand and loaded onto another press, and therefore does not disclose controlling the operation of a work transportation device between the work carrying-out section and the work carrying-in section based on a signal generated by an oscillator of the work transportation device, and controlling the signal generated by the oscillator so as to gradually decrease a deviation between the signal generated by the oscillator and the signal according to the operation of the press apparatus on the downstream side, as required by independent claim 13.

Similarly, Orii also does not disclose a controller operable to control operation of a work transportation device between the work carrying-out section and the work-carrying in section on

the basis of a signal generated by an oscillator of the work transportation device, with the work transporting control section being further operable to control the signal generated by the oscillator so as to gradually decrease a deviation between the signal generated by the oscillator and the signal according to the operation of the press apparatus on the downstream side, as required by independent claims 17 and 21.

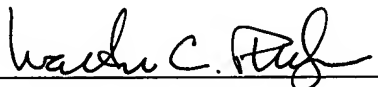
Therefore, it is respectfully submitted that independent claims 13, 17 and 21, as well as claims 14-16 and 18-20 which depend therefrom, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice to that effect is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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